Claims

1. A solenoid stator assembly adapted to be mounted upon a mounting seat of a fuel injector valve, comprising:

an insulative housing having an upper end, a lower end, and a base adapted to fit on the mounting seat of the fuel injector valve;

a substantially E-shaped stator core disposed within the housing, said stator core including

a top portion having a first end and a second end,

a first outer pole piece depending generally perpendicularly from said first end,

a second outer pole piece depending generally perpendicularly from said second end, and

a central pole piece depending generally perpendicularly from a region of the top portion located substantially central to the first and second outer pole pieces and in a direction substantially parallel to that of the first and second outer pole pieces, the first and second outer pole pieces and the central pole piece each having a distal end forming a face, each face being substantially flush with the base of the housing; and

a reinforcement band disposed about the lower end of the housing;

said insulative housing being molded to said stator core and enveloping the stator assembly except for the faces of the first and second outer pole pieces and of the central pole piece, said insulative housing being reinforced by said reinforcement band against expanding cavity pressure developed within the

assembly by fuel pressure within the fuel injector valve.

2. A solenoid stator assembly as recited in claim 1, wherein said reinforcement band is molded in said housing.

3. A solenoid stator assembly as recited in claim 2, wherein said reinforcement band is retained in location by an undercut design.

4. A solenoid stator assembly as recited in claim 3, wherein said reinforcement band is substantially annular.

5. A solenoid stator assembly as recited in claim 1, wherein said reinforcement band extends a predetermined distance upwardly from the base of the housing.

6. A solenoid stator assembly as recited in claim 1, wherein said insulative housing includes mounting portions ~~adapted~~ operative to receive securing means for securing said insulative housing to said fuel injector valve.

7. A solenoid stator assembly adapted to be mounted upon a mounting seat of a fuel injector valve, comprising:

an insulative housing having an upper end, a lower end, and a base adapted to fit on the mounting seat of the fuel injector valve;

a substantially E-shaped stator core disposed within the housing, said stator core including

a top portion having a first end and a second end,

a first outer pole piece depending generally perpendicularly from said first end,

a second outer pole piece depending generally perpendicularly from said second end, and

a central pole piece depending generally perpendicularly from a region of the top portion located substantially central to the first and second outer pole pieces and in a direction substantially parallel to that of the first and second outer pole pieces, the first and second outer pole pieces and the central pole piece each having a distal end forming a face, each face being substantially flush with the base of the housing; and

a reinforcement band disposed about the lower end of the housing, said reinforcement band being molded in said housing, said reinforcement band being retained in location by an undercut design;

said insulative housing being molded to said stator core and enveloping the stator assembly except for the faces of the first and second outer pole pieces and of the central pole piece, said insulative housing being reinforced by said reinforcement band against expanding cavity pressure developed within the assembly by fuel pressure within the fuel injector valve.

8. A solenoid stator assembly as recited in claim 7, wherein said reinforcement band is substantially annular.

9. A solenoid stator assembly as recited in claim 7, wherein said reinforcement band extends a predetermined distance upwardly from the base of the housing.

10. A solenoid stator assembly as recited in claim 7, wherein said insulative housing includes mounting portions adapted to receive securing means for securing said insulative housing to said fuel injector valve.